Boodaghians 1999-0711

In the claims:

1 (previously presented) A method comprising steps of:

establishing a bi-directional traffic trunk; and

performing a loopback function on the established bi-directional traffic trunk.

2. (previously presented) The method of claim 1, further comprising a step of:

evaluating at least one parameter of the established bi-directional traffic trunk using the performed loopback function.

3. (previously presented) The method of claim 2, further comprising a step of:

activating the established bi-directional traffic trunk, when the evaluated parameter is any one of (1) equivalent to a predetermined standard associated with the evaluated parameter and (2) exceeds the predetermined standard associated with the evaluated parameter.

4. (previously presented) The method of claim 3, further comprising steps of:

performing at least one of (1) re-establishing the bi-directional traffic trunk using a different explicit route and (2) providing notification, when the evaluated parameter is not equivalent to and does not exceed the predetermined standard.

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5. (previously presented) The method of claim 2, further including a step of:

deactivating the loopback procedure, when the evaluated parameter is any one of (1) equivalent to a predetermined standard associated with the evaluated parameter and (2) exceeds the predetermined standard associated with the evaluated parameter.

Boodaghians 1999-0711

6. (previously presented) The method of claim 2, wherein the evaluated parameter includes at least one of connectivity and delay.

7. (previously presented) The method of claim 3, further comprising steps of:

performing the loopback function for the activated bi-directional traffic trunk; and

evaluating at least one parameter for the activated bi-directional traffic trunk using the performed loopback function.

8. (previously presented) The method of claim 7, wherein the loopback function for the activated bi-directional traffic trunk is performed periodically, and the evaluated parameter for the activated bi-directional traffic trunk is evaluated periodically.

9. (previously presented) The method of claim 8, further comprising steps of:

performing at least one (1) re-establishing the bi-directional traffic trunk using a different explicit route and (2) providing notification, when the evaluated parameter for the activated bi-directional trunk is not equivalent to and does not exceed a predetermined standard associated with the evaluated standard.

10. (previously presented) The method of claim 9, wherein the parameter evaluated for the activated bi-directional traffic trunk includes at least one of connectivity and delay.

11. (previously presented) The method of claim 1, further including steps of:

selecting a label switching router in a path traversed by the bi-directional

traffic trunk; and activating a loopback procedure at the label switching router.

12. (previously presented) The method of claim 11, wherein the step of activating a loopback procedure at a label switching router further includes a step of:

transmitting an in-band network management packet that contains a command for activating the loopback procedure.

13. (previously presented) The method of claim 11, wherein the step of activating a loopback procedure at a label switching router further includes a step of:

transmitting an in-band network command to the label-switching router instructing the label switching router to activate the loopback procedure.

14. (previously presented) A method of claim 2, wherein the evaluated parameter is evaluated for at least one portion of the established bi-directional traffic trunk

15. (previously presented) The method of claim 1, wherein the bi-directional traffic trunk is established in a multi-protocol label switching network

16. (previously presented) A method comprising steps of:

activating a bi-directional

traffic trunk; and

performing a loopback function on the activated bi-directional traffic trunk

17. (previously presented) The method of claim 16, further comprising a step of:

evaluating at least one parameter of the established bi-directional traffic trunk using the performed loopback function

18. (previously presented) The method of claim 17, wherein the loopback function for the activated bi-directional traffic trunk is performed periodically, and the evaluated parameter for the activated bi-directional traffic trunk is evaluated periodically.

19. (previously presented)The method of claim 17, further comprising steps of:

performing at least one of (1) re-establishing the bi-directional traffic trunk using a different explicit route and (2) providing notification, when the evaluated parameter for the activated bi-directional traffic trunk is not equivalent to and does not exceed a predetermined standard associated with the evaluated parameter.

20. (previously presented) The method of claim 16, wherein the activated bi-directional traffic trunk is in a multi-protocol label switching network

21. (previously presented) The method of claim 17, wherein the at least one parameter includes at least one of connectivity, delay and other quality of service parameters.

22. (previously presented)A network comprising:

an originating router configured to transmit a packet downstream on a bi-directional traffic trunk; and

a loopback router configured to receive the packet and transmit the packet upstream towards the originating router on the bi-directional traffic trunk.

23. (previously presented) The network of claim 22, wherein the originating router receives the packet from the loopback router and evaluates at least one parameter of the bi-directional traffic trunk using the packet.

24. (previously presented) The network of claim 23, wherein the bi-directional traffic trunk is not carrying user traffic.

25. (previously presented) The network of claim 24, wherein the originating router performs at least one of (1) re-establishing the bi-directional traffic trunk using a different explicit route and (2) providing notification, when the evaluated parameter is not equivalent to and does not exceed a predetermined standard associated with the evaluated parameter.

26. (previously presented) The network of claim 24, wherein the originating router activates the established bi-directional traffic trunk, when the evaluated parameter is any one of (1) equivalent to a predetermined standard associated with the evaluated parameter and (2) exceeds a predetermined standard associated with the evaluated parameter.

27. (previously presented) The network of claim 24, wherein the parameter is evaluated for at least one portion of the bi-directional traffic trunk.

28. (previously presented) The network of claim 23, wherein the bi-directional traffic trunk is activated.

29. (previously presented) The network of claim 28, wherein the originating router performs at least one of (1) re-establishing the bi-directional traffic trunk using a different explicit route and (2) providing notification, when the

evaluated parameter for the activated bi-directional traffic trunk is not equivalent to and does not exceed a predetermined standard associated with the evaluated parameter.

30. (previously presented) The network of claim 23, wherein the at least one parameter includes at least one of connectivity and delay.

31. (previously presented) The network of claim 22, wherein the originating router is a label edge router.

32. (previously presented) The network of claim 22, wherein the loopback router is at least one of a label edge router and an intermediate label switching router.

33. (previously presented) The network of claim 22, wherein the packet is an in-band network management packet.

34. (previously presented) The network of claim 22, wherein the bi-directional traffic trunk is in a multi-protocol label switching network.

35. (currently amended) A method comprising steps of:

receiving a packet travelling downstream on a bi-directional traffic trunk; and transmitting the received packet upstream on the bi-directional traffic trunk , wherein the bi-directional traffic trunk is in a multi-protocol label switching network.

36. (previously presented) The method of claim 35, further comprising a step of identifying the incoming label of the received packet.

Boodaghians 1999-0711

37. (previously presented) The method of claim 36, further comprising a step of

replacing the identified incoming label with an incoming label corresponding to a received packet travelling upstream on the bi-directional traffic trunk.

38. (previously presented) The method of claim 37, further comprising steps of:

maintaining a table of next hop label forwarding entries; and

determining the received packet's next hop using a next hop label forwarding entry associated with the replaced incoming label.

39. (previously presented) The method of claim 35, further comprising a step of

determining the received packet's next hop using a loopback label forwarding entry.

40. (previously presented) The method of claim 39, further comprising a step of

maintaining a table of loopback label forwarding entries.

41. (previously presented) The method of claim 40, wherein the step of maintaining.a table further includes a step of maintaining the table of loopback label forwarding entries for the duration the loopback procedure is activated.

42. (previously presented) The method of claim 35, wherein the step of

receiving a packet further includes receiving the packet at a label switching router, and the receiving label switching router is any one of a label edge router and an intermediate label switching router.

43. (previously presented) The method of claim 42, further including a step of determining whether the label switching router receiving the packet is a loopback label switching router for the received packet.

44. (previously presented) The method of claim 35, further including a step of:

determining whether the received packet is a loopback in-band network management packet.

45. (canceled)

46. (previously presented) A router comprising:

a plurality of ports, one port of the plurality of ports receiving a packet travelling downstream on a bi-directional traffic trunk; and

processing circuitry processing the packet and forwarding the packet to a selected port of the plurality of ports for transmission to a next hop upstream on the bi-directional traffic trunk.

47. (previously presented) The router of claim 46, wherein the processing circuitry identifies an incoming label for the received packet and replaces the identified incoming label with an incoming label corresponding to a received packet travelling upstream on the bi-directional traffic trunk.

48. (previously presented) The router of claim 47, wherein the processing circuitry

includes a memory that stores routing information, and the processing circuitry determines the next hop upstream using the stored routing information associated with the replaced label.

49. (previously presented) The router of claim 48, wherein the routing information is next hop label forwarding entries.

50. (previously presented) The router of claim 46, wherein the processing circuitry

includes a memory that stores loopback label forwarding entries.

51. (previously presented) The router of claim 50, wherein the processing circuitry

identifies an incoming label for the received packet and determines the next hop upstream using a stored loopback label forwarding entry associated with the identified incoming label.

52. (previously presented) The router of claim 46, wherein the router is a label switching router in a multi-protocol label switching network.

53. (previously presented) The router of claim 52, wherein the processing circuitry

determines whether the received packet is a loopback in-band network management packet.

54. (previously presented) The router of claim 53, wherein the processing circuitry determines whether the label switching router is a loopback label switching router for the received loopback in-band network management packet.

Boodaghians 1999-0711

55. (previously presented) A method comprising steps of:

constructing a packet at a router;

transmitting the packet downstream on a bi-directional traffic trunk from the router constructing the packet;

receiving the packet at a router; and

determining whether to perform a loopback procedure at the router receiving the packet.

56. (previously presented) The method of claim 55, further comprising a step of:

identifying the received packet as a loopback packet.

57. (previously presented) The method of claim 56, further comprising a step of:

processing the received packet in accordance with a command in the packet, when the packet is determined to be a loopback packet

58. (previously presented) The method of claim 57, wherein the command is associated with at least one parameter of the bi-directional traffic trunk.

59. (previously presented) The method of claim 58, wherein the at least one parameter includes at least one of connectivity, delay, and other quality of service parameters.

60. (previously presented) The method of claim 55, wherein the router constructing the packet and the router receiving the packet are label switching routers.

61. (previously presented) The method of claim 60, wherein the router

constructing the packet is an edge router and the router receiving the packet is any one of an edge router and an intermediate router.

62. (previously presented) The method of claim 60, wherein the routers are in a multi-protocol label switching network.

63. (previously presented) The method of claim 55, wherein the step of determining whether to perform a loopback procedure further includes a step of determining whether the received packet is a loopback packet.

64. (previously presented) The method of claim 63, wherein the step of determining whether to perform a loopback procedure further includes a step of determining whether the router receiving the packet is a loopback router for the received packet.

65. (previously presented) The method of claim 64, further including a step of:

performing the loopback procedure at the label switching router receiving the packet, when the received packet is a loopback packet and the router receiving the packet is the loopback router for the received packet.

66. (previously presented) The method of claim 65, further comprising a step of:

transmitting the received packet to a next hop upstream on the bi-directional traffic trunk, towards the router constructing the packet, after performing the loopback procedure.

67. (previously presented) The method of claim 63, further comprising a step of:

Boodaghians 1999-0711

transmitting the received packet to a next hop downstream on the bi-directional traffic trunk, when the received packet is not a loopback packet.

68. (previously presented) The method of claim 64, further comprising a step of:

transmitting the received packet to a next hop downstream on the bi-directional traffic trunk, when the router receiving the packet is not the loopback router for the received packet.

69. (previously presented) A network comprising:

a bi-directional traffic trunk;

an originating router constructing a packet and transmitting a packet downstream on the bi-directional traffic trunk; and

a receiving router receiving the packet and determining whether the receiving router is a loopback router for the received packet.

70. (previously presented) The network of claim 69, wherein the receiving router

performs a loopback procedure, when the receiving router is the loopback router for the received packet.

71. (previously presented) The network of claim 70, wherein the receiving router

processes the received packet in accordance with a command in the packet.

72. (previously presented) The network of claim 71, wherein the command is

associated with at least one parameter of the bi-directional traffic trunk.

73. (previously presented) The network of claim 72, wherein, the at least one parameter includes at least one of connectivity, delay, and other quality of service parameters.

74. (previously presented) The network of claim 70, wherein the receiving router transmits the received packet to a next hop upstream, towards the originating router, when the receiving router is the loopback router for the received packet.

75. (previously presented) The network of claim 69, wherein the receiving router transmits the received packet to a next hop downstream on the bi-birectional traffic trunk, when the receiving router is not the loopback router for the received packet.

76. (previously presented) The network of claim 69, wherein the originating router and the receiving routers are label switching routers.

77. (previously presented) The network of claim 76, wherein the originating label switching router is an edge router and the receiving router is any one of an edge router and an intermediate router.

78. (previously presented) The network of claim 69, wherein the bi-directional traffic trunk is in a multi-protocol label switching network.

79. (previously presented) The multi-protocol label switching network of

Boodaghians 1999-0711

claim 69, wherein the packet is an in-band network management packet.

80. (new) The method of claim 1 wherein the loopback function is performed by transmitting one or more loopback packets from a first node to a second node, transmitting the loopback packets from the second node to the first node, and includes the additional steps of storing packet data at the first node, and comparing that stored data with the loopback packet.